# RIVERWAYS PROGRAM

Building Partnerships, Protecting Rivers

# 2005 ANNUAL REPORT



Aerial view of the Taunton River



Hannegan Brook

The Riverways Program promotes ecologically healthy rivers and streams by engaging strong community support and leadership throughout Massachusetts. The Riverways Program was established in 1987 with the realization that protecting and restoring more than 10,000 miles of rivers and streams and adjacent lands in the Commonwealth could not be achieved by state government acting alone.



Stonefly photo by Tim Watts

### TABLE OF CONTENTS

etter from the Director	2
Highlights of 2005	3
River Restoration	4
Policy	6
echnical Assistance	7
Advocacy & Constituency Building.	8
Programs & Projects	.10
Vorkshops & Presentations	11
Riverways Staff	.12



Tower Brook restoration



Volunteer measuring streamflow

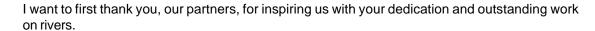


RIFLS certification training



The mission of the Riverways Program is to promote the restoration, protection and ecological integrity of the Commonwealth's rivers, streams and adjacent lands.

# Letter from the Director



In our yearly review of Riverways, we continued to be adaptive, keeping traditional programs while finding new approaches to meet current challenges of our rivers (many of them identified by you). Our 2005 Annual Report features four intersecting areas that are integral to the work at the Riverways Program: restoration, policy, technical assistance, and advocacy and constituency building. This Annual Report includes highlights of the year as well as more in-depth discussion of each of our four focus areas.

This year *restoration* has been a major priority at Riverways. We have instituted a new process, "Priority Projects", to help us identify "doable" on-the-ground restoration. (Thanks to the Wetlands Restoration Program and NOAA for their guidance.) We received outstanding proposals in watersheds across the state; it was very difficult to narrow the list to only 11! We are all excited by these projects. Working on dam removal since 1999, Riverways has eagerly responded to increased interest precipitated both by new dam regulations and the dangers exposed by the October, 2005 flood waters. We are working on various restoration phases of 9 dam removals.

Promoting river-friendly *policy* is implicit in everything we do. Examples of policy work this year include working with UMASS Extension and partners to develop guidance promoting fish and wildlife passage at culverts (and we are delighted that the Army Corps included this guidance as part of their permits—a first in the nation) and emphasizing instream flow issues through comments, studies and testimony. We are also participating in Secretary Pritchard's Dam Streamlining Task Force.

All of our programs provide *technical assistance* to groups, individuals and cities and towns on riverine issues. It's a two-way street—we continually learn from our partners.

Promoting *advocacy and constituency building* for rivers continues to be the foundation of all that we do. To more efficiently share information and examples for potential projects, we have a new, more user-friendly website, <a href="www.massriverways.org">www.massriverways.org</a>. There you can also access the River Continuity Handbook and poster that guide local communities in promoting fish and wildlife passage at culverts.

I want to end by thanking the members of the Riverways staff, whose dedication, creativity and hard work provide the current that powers Riverways.

This year Riverways saw some significant staff changes. We wish 13-year Riverways veteran Karen Pelto well at UMASS graduate school and thank her for her creative work. We welcome two outstanding new staff members, Tim Purinton, who brings us experience in restoration and permitting, as our new Restoration Planner; and (filling Eileen Goldberg's former position when she became Assistant Director) Erin Higbee, who serves as coordinator for our new Priority Projects as well as for Riverways new website.

See you on the rivers and streams in 2006!

Joan Kimball, Director

The Riverways Program provides tools to help local communities and groups:

- Protect and restore water quality
- Protect healthy stream flows
- Protect land along rivers and streams
- Improve habitat for wildlife and fish in river corridors
- Promote public access to and along rivers and streams consistent with resource protection

# 2005 Program Highlights

### STREAM RESTORATION

- Stream Crossings Handbook
   Developed an educational handbook and poster providing an overview of the issues of river continuity at stream crossings and distributed to the DPW and Conservation Commission in every city and town
- River Restoration Priority Projects
   Launched a new process for prioritizing restoration projects and selected 11 new restoration projects for dam removal, daylighting, and riparian restoration
- Town Brook Restoration
   Restored 250 linear feet of stream bank along Town
   Brook in historic Brewster Park, Plymouth in partnership with the Town of Plymouth and EOEA's Coastal Web Program
- Tower Brook Fish Passage Restoration
  Retrofitted a culvert, in partnership with the USFWS,
  to restore fish passage on Tower Brook, a high
  quality cold water stream in Chesterfield
- Environmental Risk Model and Dams Data
  - In partnership with the USGS, is developing a model that predicts impoundment sediment quality based on landscape characteristics
  - In partnership with USGS, completed sediment quality testing in 10 dam impoundments throughout the state

### **POLICY**

- Massachusetts Stream Crossing Standards
   Participated in developing the Stream Crossing
   Standards, which were successfully included in the
   Massachusetts Army Corps of Engineers PGP
   (Programmatic General Permit)
- Weir River
   Successfully initiated the addition of the Weir River watershed to the state's list of highly stressed basins
- Federal Wild and Scenic Rivers
   Participated in writing the Taunton River Stewardship
   Plan with the Wild & Scenic Study Committee

### TECHNICAL ASSISTANCE

 Riverways staff provided technical assistance to over 500 groups and individuals on issues including stream flow, water quality, land protection, access, habitat protection and dam removal issues

- Index of Biotic Integrity for fish Worked with USGS and DFW to develop metrics for fish populations that will be sensitive to streamflow alterations for the Index of Biotic Integrity for fish in Massachusetts
- Target Fish Community
   Wrote and compiled data for the soon to be published Housatonic Target Fish Community study

### ADVOCACY & CONSTITUENCY BUILDING

- Conferences
  - Organized two Riverways conferences: the Massachusetts Streamflow Conference; and Beyond Sewering. Individual staff presented at over 25 conferences throughout the region.
- New website design and program logo
   Developed a more user-friendly and resource-filled
   website and created a new logo for the Riverways
   Program. The new, interactive RIFLS webpage and
   database allows for volunteers to directly enter
   streamflow data and graph their data.
- RIFLS volunteer groups
   Initiated five new RIFLS groups, 12 new sites, 12 new staff-gauge-reading volunteers and certified eight volunteers to measure flow and train new volunteers.

   Seventeen RIFLS groups have contributed over 1100 hours of monitoring and recorded 2,814 gage readings at 35 active sites.
- Nonpoint Source Pollution Prevention
   Implemented a social marketing project promoting best management practices as part of an ongoing s.319 nonpoint source grant project funded by DEP/EPA.
- Stream Teams
  - 21 Stream Teams with 210 individuals contributed over 1,400 hours of surveying, planning and implementing projects
- Stream Team Implementation Awards
   Five Stream Teams received Implementation Awards
   to complete local river protection projects for graphic
   informational signs, brochures, advocacy and
   educational programs
- Stream Crossings Surveys
   More than 1,000 stream crossings have been surveyed statewide to determine fish and wildlife passage with volunteer efforts focused on the Westfield, Housatonic, Taunton, Ipswich and Millers watersheds

# RIVER RESTORATION

Riverways evaluates and undertakes stream restoration projects by partnering with local and regional river advocacy groups. Projects are approached as ecosystem-based subwatershed restoration focusing on the factors that most impact river and stream health. Restoration projects that Riverways works on include dam removal, culvert replacement and retrofits, bank stabilization and stream daylighting.

### DAM REMOVAL

Riverways continues to raise awareness about the benefits of dam removal. With over 3,000 dams statewide, Riverways continues to work collaboratively with communities and partners interested in pursuing the option of dam removal to restore habitat and eliminate public safety hazards. This year Riverways selected nine dam removal projects to collaborate on with partners through the Riverways Priority Projects.

Riverways has been working cooperatively with the Town of Becket to restore continuity of habitat and fish movement in **Yokum Brook**, a high quality coldwater tributary to the West Branch of the Westfield River. The Yokum Brook restoration project involves removal of the Silk Mill and Ballou Dams and instream habitat and bank enhancements. Completion of the project will eliminate barriers to Atlantic salmon migration and enable eastern brook trout movement–restoring 50 kilometers of river continuity downstream and 14 kilometers upstream.

### NEPONSET RIVER RESTORATION

Riverways continues to take a lead in an integrated, watershed approach to restoring the Neponset River. The goal is to restore upstream and downstream passage of shad, blueback herring, alewife, American eel and resident native fish and aquatic species. Fish passage has been significantly blocked for almost a century.

Since 1998 Riverways has worked closely with the Army Corps of Engineers, state, local and federal partners, and the U.S. Geological Survey to produce technical reports on this restoration project.

Due to the complexities surrounding restoration of the Neponset River, the Neponset River Environmental Literacy Project was initiated. This project entails working with UMASS-Amherst, local land and watershed associations and residents of the Lower Neponset to increase awareness regarding the River's impaired health and best-case options for restoration and remediation.

## PRIORITY PROJECTS

In 2005 Riverways Program formalized an exciting new process for prioritizing river restoration projects throughout the state. Through a competitive process projects are selected and placed on a priority list. Priority Projects will receive technical assistance, technical services and in some cases funding support. These projects will restore natural

river and stream processes to areas historically degraded, altered, or destroyed. The projects utilize innovative restoration approaches (such as dam removal, day lighting or instream h a b i t a t



Eel River, Plymouth

enhancements) and result in on-theground implementation. The projects

will also work to increase local capacity for restoration at local, municipal, and regional levels.

# 2005-2006 PRIORITY PROJECTS

Blackstone River, Worcester Consolidated Street Railway (Mass Electric) Dam, Millbury

Eel River Headwaters Restoration, Plymouth

Galloway Brook, Upper Cooks Canyon Dam Removal, Barre

Hoosic River and Hoxie Brook Daylighting and Habitat Improvements. Adams

West Branch Housatonic River, Mill St. (Tel-Electric) Dam, Pittsfield

Little River Habitat Improvements, Gloucester

North Nashua River Habitat Improvements, Fitchburg

Red Brook Dam Removal and Salter Brook Trout Restoration, Wareham

Swift River Rock Structure Removal, Belchertown and Ware

Town Brook, Plymco and Off Billington Street Dams, Plymouth

# RIVER RESTORATION

# PILOT DEMONSTRATION PROJECTS

Riverways worked with partners, including the USFWS, on three river continuity demonstration projects this year. Two of the projects are on high quality cold water tributaries to the East Branch of the Westfield River. A perched culvert on **Tower Brook,** in Chesterfield



was resulting in water levels too low for most fish to pass through. To restore the flow at this crossing, the height of the downstream riffle was increased, which raised the water to match the level of the culvert. A sediment retention sill structure was installed in the culvert to hold material and aid fish and wildlife with passage.



Tower Brook prior to restoration



Tower Brook after tailwater pool raised and substrate laid in crossing



RIFLS groups have used their stream flow monitoring data for various planning projects, including: an assessment of the potential for herring restoration on the Saugus River, evaluation of a potential new well site's impact on stream flow in Hannegan Brook, Montague, management of lake drawdown to minimize downstream impacts, and nutrient loading estimates from major tributaries to the Taunton River.

Hannegan Brook, Montague

Two culverts on **Bronson Brook** in Worthington create a passage barrier for Atlantic salmon and resident coldwater species such as Eastern brook trout and black nosed dace. Riverways has worked



with the Town and several project partners to complete final engineering designs to replace one failed culvert and retrofit the second downstream culvert, which will connect three miles of upstream habitat.



An alternatives analysis was completed on Labor in Vain Brook, a small tributary to the Taunton River in Somerset. The end result will be to remove tidal restrictions to three separate culverts, which currently create

tidal restrictions to 14 acres of saltmarsh while freshwater inputs have altered the ecology of surrounding wetlands.

In cooperation with state, local and federal parnters, Riverways developed a monitoring plan and completed in-

depth field measurements for the **Brewster Garden** restoration project in Plymouth, which restored 250 linear feet of stream bank along Town Brook. The restoration enhances smelt spawning habitat and creates an important riparian corridor in an



environmentally sensitive tidal zone. This project was selected as a Coastal WEB project by EOEA.

In partnership with the National Park Service and the Town of Lincoln, Riverways is developing a plan to daylight a stream in the **Minute Man National Park** by replacing the culvert that currently confines the stream underground.

# **POLICY**

The Riverways Program works with local, state, and federal partners to promote and establish policies that protect and restore valuable riverine and watershed resources. Understanding the functions of riverine ecosystems and the details of laws, regulations and policies affecting rivers, riparian lands and watersheds is key to safeguarding the natural integrity of local rivers and streams.

## **POLICY ACHIEVEMENTS**

- Riverways' participation in the River Continuity Partnership produced Stream Crossing Standards that were included in the Army Corps permits required for all culvert replacements. These standards require crossing designs that facilitate movement of fish and wildlife.
- Riverways worked with the MA Water Resources Commission (WRC) and the Weir River Watershed Association to complete the first hydrologic stress level assessment. Using the methods described in the report and the results of previous studies, the WRC determined that the Weir River should be listed as a High Stress basin. This designation helped pave the way for other unassessed rivers in need to receive the correct stress level designation.
- Riverways staff provided input to EOEA's desalination policy workgroup to protect fragile estuaries and encourage better wholistic management of water supplies by encouraging reduced withdrawals from current sources that cause environmental damage.
- Riverways staff provided technical assistance by reviewing the following policies:
  - -Water Conservation Standards
  - -Triennial Review of Water Quality Standards
  - -Integrated Water Resources Management Planning
  - -DCR's proposed Dam Regulations

### COMMITTEES THAT RIVERWAYS STAFF PARTICIPATE IN:

#### Restoration

- Gulf of Maine Dam Removal Monitoring Task Force
- Interagency Water Committee
- · Mass. Instream Flow Task Force
- Northeast Stream Barrier Task Force

#### Policy

- EOEA/USGS stream gauge network review and augmentation
- EOEA desalination group
- EOEA Low Impact Development workgroup
- EOEA work group to streamline new source approvals
- Mass Bays Steering Committee
- Water Quality Standards language for Cold Water Fisheries Technical Assistance
- Connecticut River Streambank Erosion Committee (Chairman)
- Dam Streamlining Task Force
- ELM Lawyers Committee Water Policy Work Group
- Hoosic River Ecosystem Partnership

- Housatonic River NRD Review Committee
- Mass. Land Trust Coalition Steering Committee
- Mass. Social Marketing Association Steering Committee
- New England Instream Habitat advisory committee
- New England Water Works Association Conservation Committee
- Quinebaug-Shetucket Water Resources Subcommittee
- Running River Steering Committee
- Souhegan River Target Fish Community Advisory Group
- Special Advisor to Board of the Blackstone River Watershed Assoc.
- Update the Mass. Bottle Bill Coalition member
- Watershed Association Technical Advisory Committee
- Water Resources Commission
- Water Supply Citizens Advisory Committee (WSCAC)

## Advocacy and Constituent Building

- · Biodiversity Days leader
- Blackstone River Expedition "Day 1" Planning Committee
- Quinebaug-Shetucket Walking Weekends Committee



WILD AND SCENIC RIVERS

- The Westfield River Wild & Scenic Committee celebrated the recent extension of the Wild & Scenic Designation. Scenic road signs have been installed in locations throughout the watershed.
- Riverways participated with the Wild & Scenic Study Committee in finalizing the Taunton River Stewardship Plan. All 10 corridor towns in the Taunton River watershed voted to support the stewardship plan and congressional designation.



Aerial view of the Taunton River

# TECHNICAL ASSISTANCE

Riverways provides technical assistance to citizens, municipalities and watershed groups to protect and restore river corridors and ecological systems, and to facilitate community riverfront revitalization and public access.

Riverways staff provided consultations, site visits, engineering and bioengineering assistance and technical comment letters. Staff provided on-site assessments of 17 different potential river restoration projects in 12 different watersheds.



#### TECHNICAL ASSISTANCE:

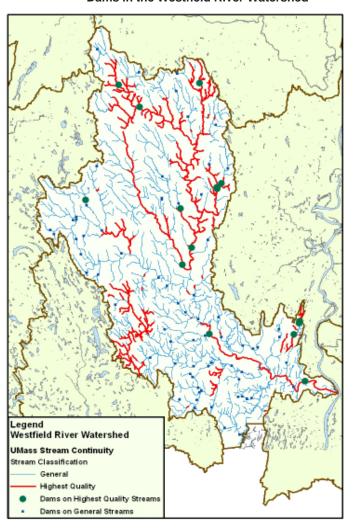
In 2005, Riverways provided the following technical assistance:

- Presented two NPDES training sessions for advocates and technical assistance to eight different groups on the permits
- Presented three MEPA training sessions/workshops
- Provided fluvial geomorphology technical advice to communities and partners on 12 different potential restoration projects throughout the state.
- Worked with USGS to develop a land-use based index of streamflow alteration
- Identified potential "reference" streams in the Westfield watershed to pilot Target Stream Structure an effort to quantitatively describe the characteristics of the highest quality streams.
- Worked with USGS and DFW to develop metrics for fish populations that will be sensitive to stream flow alterations to eventually be incorporated into an Index of Biotic Integrity for fish in MA
- Responded to 22 requests for information regarding streamflow
- Provided technical assistance and project support to Adopt-A-Stream's Stream Teams for riparian buffer plantings, follow-up stream surveys, permitting questions and review of outreach materials
- Reviewed and commented on 34 NPDES draft permits
- Provided technical assistance to 430 people and 310 different organizations located in 143 cities and towns.
- Submitted letter prompting FERC to order the Northfield Mountain Pumped Storage Power Plant to take additional steps to address the exacerbated levels of streambank erosion in the Turner's Falls segment of the Connecticut River

### ENVIRONMENTAL RISK INDEX

Riverways collaborated with the U.S. Geological Survey on a GIS-based model, the Environmental Risk Index, to predict the potential toxicity of sediment impounded behind dams, called the Regional Impounded Sediment-Quality Assessment (RISQA). A draft model has been developed focusing on potential point sources and landuse as toxicity predictors, with promising results. The USGS tested sediment quality data from an additional ten impoundments to calibrate and verify the model. The Environmental Impacts portion of the model has been expanded to include data across state borders. The Impacts model was run on the Westfield watershed to show the impacts of dams on salmon runs and highlight current data limitations.

#### Dams in the Westfield River Watershed



# **ADVOCACY**



The Riverways Program is based on the belief that local action is the key to river protection. Riverways staff work side-by-side with local citizens, town officials, watershed-based groups and other partners to restore and protect the state's rivers and their ecosystems. To generate involvement, Riverways has developed a suite of monitoring and restoration tools that help citizens become active stewards of their watersheds.



Neighborhood planters in Scituate

Through a project supported by a S. 319 nonpoint source pollution grant from DEP and EPA, Adopt-A-Stream worked with groups in East Longmeadow and Scituate to implement stormwater local mitigation through neighborhood planting projects demonstration gardens. The project was the result of a social marketing research study to determine how to broaden wider

acceptance of storm water best management practices to benefit rivers. Over 50 volunteers have participated in the local planting projects.

"When I first took an interest in French River stewardship and revitalization, I quickly discovered I didn't have a clue how to get started or who to talk to. But once I found Riverways I knew I had come to the right place. Not only are they a great source of advice about ways to proceed and resources available, their shoreline survey process is a well-defined program that motivates community members to action. But most of all, without the encouragement and positive feedback from Riverways, we might not have gotten the French River Connection started at all."

Ken Parker, French River Connection, Webster, MA

The River Instream Flow Stewards (RIFLS) program began working with five new groups (Cedar Swamp Conservation Trust, Parker River Clean Water Association, Coalition for Buzzards Bay, Nashua River Watershed Association/Trout Unlimited Nissitissit Chapter, and Turners Falls Water Department/

Montague Conservation



RIFLS certification training

Commission) on 12 new streamflow monitoring sites across the state this year. The RIFLS network now includes 35 sites statewide with 57 volunteers from 12 groups who monitor streamflow by reading staff gauges. Eight RIFLS volunteers were also certified this year to train new RIFLS volunteers and maintain their own rating curves by making direct measurements of streamflow.



A major website upgrade this year makes navigation more user-friendly and includes many resources for people interested in working on their rivers. The RIFLS webpage enables volunteers and other users to access the data that is collected in graphical form.



Massachusetts Streamflow Conference

### **CONFERENCES**

Riverways organized two conferences this year: the *Massachusetts Streamflow Conference*, which drew over 200 people to hear about the status of streamflow problems and restoration tools in Massachusetts and; *Beyond Sewering: Making Sound Water, Wastewater, and Water Resource Decisions for your Community*, which explored regulatory and planning approaches to integrated water resources management to help communities keep water local. Additionally, *RIFLS* organized a tour of the University of Rhode Island's Onsite Wastewater Training Center.

# CONSTITUENCY BUILDING

### **WORKING WITH STREAM TEAMS**

Adopt-A-Stream continues to work with groups to assess river and stream health. Several Shoreline Surveys have also been planned as part of a 604b assessment grant in

the Deerfield River watershed, and one survey is already completed on the South River in Conway, with surveys planned for the spring on the North River and Chickley River. The newly formed French River Connection is working on a Shoreline Survey in Webster and Dudley. Several Stream Teams including Third Herring Brook in Norwell and Hanover, Four Mile Brook in Northfield, Millers River and Otter River Stream Teams in Millers River Watershed have reported continued monitoring and action planning.

# NEWSNOTES

Riverways distributed five issues of NewsNotes, Riverways' electronic newsletter to 1500 consituents across the state.



Four Mile Brook riparian buffer planting

Just wanted to pass on a "Thank You" and "Kudos" on these [Riverways NewsNotes] e-mail newsletters. They are packed with so much information and so many resources...what an incredible service! Many, many thanks and a job well done!"

Brandon Kibbe, Director of Land Protection, Sudbury Valley Trustees

### RIVER CONTINUITY VOLUNTEERS

Adopt-A-Stream has been active across the state helping groups complete river protection projects, survey dams and culverts. complete

culverts, complete shoreline surveys and assess stream health. Riverways continues to train volunteers to complete stream crossing surveys and identify problems and potential for restoration. Riverways also continues to partner with the



University of Massachusetts, Extension to refine the stream crossing standards.

River Continuity developed the Massachusetts Stream Crossings Handbook and poster to inform and educate



local decision makers and conservationists about the importance of properly designed stream crossings. Every town Conservation Commission and Department of Public Works has received a copy for their use in permitting, designing and maintaining stream crossings.

# 2005 STREAM TEAM IMPLEMENTATION AWARDS

In 2005 Implementation Awards helped groups in the Westfield and Mystic River watersheds to implement river protection projects. Completed projects advanced protection through graphic informational signs, brochures, extensive advocacy and educational programs.



Sign created by the Westfield River Watershed Association

The following projects

received Stream Team Implementation Awards:

Westfield River Watershed Association, Westfield River Wild and Scenic Advisory Committee and Jacobs Ladder Trail Committee:

Trash Reduction at Westfield River Access Points

Westfield River Watershed Association and Massachusetts

Community Water Watch:

Westfield Stormwater Education Program

Town of Winchester:

Aberjona River Outreach: Invasives and River Friendly Plantings Education

Friends of Mystic River/Medford:

Signs for Habitat Restoration Project

Mystic River Watershed Association:

Mystic Stewardship Education Project

# Programs and Projects

# adopt a stream

# building partnerships within communities

Adopt-a-Stream works with citizens to support and develop projects in watersheds across the state that restore habitat and natural stream structure, protect flow and identify and prevent non-point source pollution.

# RIFLS: river instream flow stewards

## restoring natural flow

The River Instream Flow Stewards (RIFLS) helps local groups identify, document and restore rivers and streams suffering from abnormally low flows.

## river restore

# reconnecting rivers and their communities

River Restore collaborates with dam owners, federal, state, local and nonprofit partners, to selectively remove dams and other obstructions reconnecting natural and cultural river communities. Riverways is focusing efforts to demonstrate dam removal as a win-win approach that restores habitat and eliminates public safety hazards.

### environmental risk

# assessing the hazards and impacts of dams

River Restore is developing a GIS-based analytical framework, the Index of Environmental Risk, to:

- (1) assess the **environmental impact** of dams on aquatic resources from their contributions to environmental degradation, and
- (2) characterize the **environmental hazard** to aquatic and other public resources from the uncontrolled breach or catastrophic failure of dams.

## river continuity

# reconnecting habitat for fish and wildlife

River Continuity is a partnership with UMass Extension and other partners which aims to reduce adverse impacts of road crossings on fish and wildlife movement

### technical assistance

## assisting communities and citizens

Riverways' Technical Assistance Team provides assistance to citizens, municipalities and watershed groups to protect and restore river corridors, ecological systems, and facilitate community riverfront revitalization and public access.

### urban rivers

## reconnecting cities to their rivers

Urban Rivers works to promote neighborhood participation, revitalize urban riverfronts and restore fisheries.

# priority projects

## providing support for restoration projects throughout the state

In 2005 the Riverways Program formalized an exciting new process for prioritizing river restoration projects throughout the state. Through a competitive process projects have been selected and placed on a priority list. Priority projects will receive technical assistance and direct funding for implementation. The intent of this process is to bring about habitat-based river and stream restoration by assisting local project proponents.

# federal wild and scenic rivers

# providing leadership on the Wild and Scenic Rivers Committees

Federal Wild and Scenic Rivers are part of a national system that identifies outstanding values and protect the free-flowing condition of rivers. Riverways staff represents the Commonwealth to National Wild and Scenic rivers in Massachusetts.

# 2005 Workshops and Presentations by Riverways staff

- American Society of Civil Engineers Watersheds 2005 Conference, Sediment Quality Assessment and Management Framework for Dam Removal Projects – Brian Graber
- American Whitewater River Stewardship Workshop, Ecology of Streamflow—Margaret Kearns
- Association of Massachusetts Wetland Scientists Annual Meeting, Challenges to Proactive River Restoration in Massachusetts – Brian Graber
- Connecticut River Atlantic Salmon Commission Research Conference, River Continuity: Reconnecting Critical Fish and Wildlife Habitat – Brian Graber
- Ecological Landscaping Association December Roundtable, Deadwood's Critical Role! –Tim Purinton
- ➤ GIS Day, Index of Environmental Risk: Modeling Dam Impacts and Hazards in Massachusetts and Environmental Impact Model: Phase Two In Development –Chris Leuchtenburg
- Ipswich Restoration Conference Setting Goals for Flow Restoration – Margaret Kearns Open Space Residential Design and River Protection – Tim Purinton
- Massachusetts Association of Conservation Commissions Annual Conference

Rivers and River Restoration – Brian Graber

Let if Flow, Let it Flow, Let it Flow:
Conservation Commissions and Stream Flow—
Margaret Kearns

River Continuity: Reconnecting Critical Fish and Wildlife Habitat – Amy Singler

- Massachusetts Association of Conservation Commissions Stream Crossing Workshop, Fluvial Geomorphology and Stream Crossings –Brian Graber
- Massachusetts Association of Conservation Commissions Workshop on Dam Repair and Removal, Rivers Dams and Impoundments –Brian Graber

Dam removal case study: Old Berkshire Mill Dam/ Dalton & Mill Pond Dam/Hanover & Norwell –Karen Pelto

Massachusetts Community Water Watch Organizers training, An Overview of River and Stream work in Massachusetts and Shoreline Survey Training, Amy Singler

- Massachusetts Society of Municipal Conservation Professionals (MSMCP), River Continuity: Reconnecting Critical Fish and Wildlife Habitat – Amy Singler
- Massachusetts Land Conservation Conference Cooperative partnerships between land trusts and water suppliers in protecting land with water supply significance –Russ Cohen (speaker/panel moderator)
- Massachusetts Watershed Coalition Annual Meeting, Streamflow in Massachusetts—Margaret Kearns
- National River Rally, Presented River Hero Award to Tim Watts – Carrie Banks
- NEAEB, River Instream Flow Stewards: Building an Instream Flow Constituency – Margaret Kearns
- Rhode Island Rivers Council Watershed Summit, Engaging Communities to Visualize Alternative Futures for Rivers: Conceptual Renderings and Charrettes –Karen Pelto
- Riverways Beyond Sewering Conference,

Keeping Water Local: Living Within Your Hydrologic Budget – Margaret Kearns and Cindy Delpapa

Moderator - Joan Kimball

- Riverways Stream Flow
   Conference, Ecology of Streamflow
   –Margaret Kearns, Moderator –Joan Kimball
- Sudbury, Assabet, and Concord Wild and Scenic, Ecology of Streamflow-Margaret Kearns
- ➤ Taunton River Watershed
  Association Annual Meeting, River
  Continuity/Dam Removal—Rachel
  Calabro
- Taunton Wild and Scenic data night, presentation of RIFLS data – Margaret Kearns
- The Nature Conservancy/ UMass Hydrologic Alteration Workshop, Current Fisheries Analysis and Flow Sensitive IBI Development—Margaret Kearns
- U.S. ACOE Assabet River Information Sharing Workshop, Effective Use of Conceptual Renderings in Outreach Activities Associated with Habitat Restoration Projects –Karen Pelto
- University Council on Water Resources, River Continuity: Reconnecting Critical Fish and Wildlife Habitat – Brian Graber and Amy Singler
- Westfield River Symposium, Westfield, Wild & Scenic Westfield River Carrie Banks
- Western Massachusetts Flyfishermen Club, Stream Restoration Projects in Westfield River Watershed – Carrie Banks



# **Riverways Staff**



Riverways staff, Hinsdale, fall 2005

Joan Kimball, Riverways Director

\*Carrie Banks, Community Organizer - Western Watersheds, Westfield Wild & Scenic Coordinator Rachel Calabro, Adopt-A-Stream Program Coordinator, Regional Planner Russell Cohen, Rivers Advocate

Cindy Delpapa, Stream Ecologist and Urban Rivers Coordinator

Eileen Goldberg, Assistant Director

\*Brian Graber, Restoration Scientist, Fluvial Geomorphologist

\*Erin Higbee, Program Administrator, Priority Projects Coordinator Margaret Kearns, Watershed Ecologist and RIFLS Coordinator

\*Chris Leuchtenburg, River Restore Data Researcher

**Tim Purinton**, River Restoration Planner

**Amy Singler**, Riverways Community Organizer

- \*Gabrielle Stebbins, Instream Flow Technical Assistant, Neponset Literacy Coordinator
- \*Tom Warhol, Instream Flow Technical Assistant
- \* special funding

### The Commonwealth of Massachusetts

Mitt Romney, Governor Kerry Healey, Lt. Governor

Stephen R. Pritchard, Secretary, Executive Office of Environmental Affairs

David Peters, Commissioner, Department of Fish and Game



RIVERWAYS PROGRAM